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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,547	08/15/2003	Markus Hammes	L&L-10024	1990
24131	7590	10/31/2006	EXAMINER	
LERNER GREENBERG STEMER LLP			WARE, CICELY Q	
P O BOX 2480			ART UNIT	PAPER NUMBER
HOLLYWOOD, FL 33022-2480			2611	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

ST

Office Action Summary	Application No.	Applicant(s)	
	10/642,547	HAMMES ET AL.	
	Examiner	Art Unit	
	Cicely Ware	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-14 and 19-22 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 15-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because:

a. Fig. 1, element 15, applicant uses "Data Conv rsion Unit". Examiner suggests using "Data Conversion Unit" for clarification purposes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

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a. Pg. 21, line 9, applicant uses " k_0 ad k_2 ". Examiner suggests using " k_0 and k_2 " for clarification purposes.

b. Pg. 21, lines 9-10, examiner suggests applicant re-write these lines for clarification purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 8-14, 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Admitted Prior Art (Fig. 1).

(1) With regard to claim 1, Applicant's Admitted Prior Art discloses in (Fig. 1) an apparatus for ascertaining and correcting an optimum sampling time for an oversampled digital stream in which samples are taken at n different sampling times for each bit, the apparatus comprising: a reading unit (7, 8) for reading each next digital bit stream at said optimum sampling time (Pg. 2, lines 22-26- Pg. 3, lines 1-5, Pg. 16, lines 11-25); a correlation determining unit (8) for determining a correlation between a sequence of sampled data bits and a comparative sequence (9), said correlation determining unit providing correlation values by determining an associated correlation value at each sampling time; and a unit (11) for determining a new optimum sampling time from said

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correlation values; said comparative sequence (10) being a continuous bit pattern; and said bit read at said optimum sampling time being fed into said comparative sequence (10, 2).

Examiner asserts that the comparative sequence is the synchronization word of Fig. 1, because it is used by the correlation determining unit to compare with the memory cells.

(2) With regard to claim 2, claim 2 inherits all the limitations of claim 1.

Applicant's Admitted Prior Art further discloses in (Fig. 1) a comparative-sequence shift register (10) for storing said comparative sequence; said bit read at said optimum sampling time being fed into comparative-sequence shift register (8, 10).

Examiner asserts that the comparative-sequence shift register is the memory of (Fig. 1 (10), because it stores the synchronization word which is the comparative sequence.

(3) With regard to claim 3, claim 3 inherits all the limitations of claim 1.

Applicant's Admitted Prior Art further discloses in (Fig. 1) a sequence of shift registers (1-5) for shifting said oversampled digital bit stream; each one of said shift registers having n register cells (Z) for holding n samples available for each bit.

(4) With regard to claim 8, claim 8 inherits all the limitations of claim 1.

Applicant's Admitted Prior Art further discloses wherein said correlation determining unit determines a hamming distance between said sequence of sampled data bits that is associated with a particular sampling time and said comparative sequence (Pg. 16, lines 11-25 – Pg. 17, lines 1-25).

(5) With regard to claim 9, claim 9 inherits all the limitations of claim 8.

Applicant's Admitted Prior Art further discloses wherein said correlation determining unit compares said hamming distance with a prescribed threshold value and if is below said threshold value, unit sets an associated correlation said hamming distance said correlation determining flag (Pg. 17, lines 6-25 – Pg. 18, lines 1-25).

(6) With regard to claim 10, claim 10 inherits all the limitations of claim 8.

Applicant's Admitted Prior Art further discloses in (Fig. 1) wherein said unit for determining said new optimum sampling time (8) determines said new optimum sampling time by considering a sampling-time range (Pg. 17, line 25 (equation discloses a range related to the hamming distance)) within which said hamming distance is below said prescribed threshold value (Pg. 17, lines 6-25).

(7) With regard to claim 11, claim 11 inherits all the limitations of claim 8. See rejection of claim 10. Applicant's Admitted Prior Art further discloses said new optimum sampling time is chosen as a time that is in a center of said sampling-time range (Pg. 17, lines 6-25 – Pg. 18, lines 1-25, Pg. 19, lines 10-25 – Pg. 20, lines 1-11).

(8) With regard to claim 12, see rejection of claim 1.

Examiner asserts that applicant refers to P as an optimum sampling phase at an optimum time (Pg. 20, lines 9-15 and P_k as an optimum sampling phase for the optimum sampling time (Pg. 23, lines 9-10). Therefore claim 12 inherits all the limitations of claim 1.

(9) With regard to claim 13, claim 13 inherits all the limitations of claim 12. See rejection of claim 2.

(10) With regard to claim 14, claim 14 inherits all the limitations of claim 12. See rejection of claim 3.

(11) With regard to claim 19, claim 19 inherits all the limitations of claim 12. See rejection of claim 8.

(12) With regard to claim 20, claim 20 inherits all the limitations of claim 19. See rejection of claim 9.

(13) With regard to claim 21, claim 21 inherits all the limitations of claim 19. See rejection of claim 10.

(14) With regard to claim 22, claim 22 inherits all the limitations of claim 21. See rejection of claim 11.

Allowable Subject Matter

5. Claims 4-7, 15-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses an apparatus for ascertaining and correcting an optimum sampling time for an oversampled digital bit stream. Prior art references show similar methods but fail to teach: **“wherein said optimum sampling time is determined a plurality of times during a data burst”**, as in claims 4 and 15; **“wherein said optimum sampling time is determined a plurality of times during a data burst at cyclic intervals”**, as in claims 5 and 16; **“wherein said comparative sequence is equated to a**

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synchronization word at each start of reception of a data burst”, as in claims 6 and 17; “wherein said optimum sampling time is varied only within a prescribed range around a previous optimum sampling time”, as in claims 7 and 18.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571-272-3021. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
October 12, 2006


**MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER**

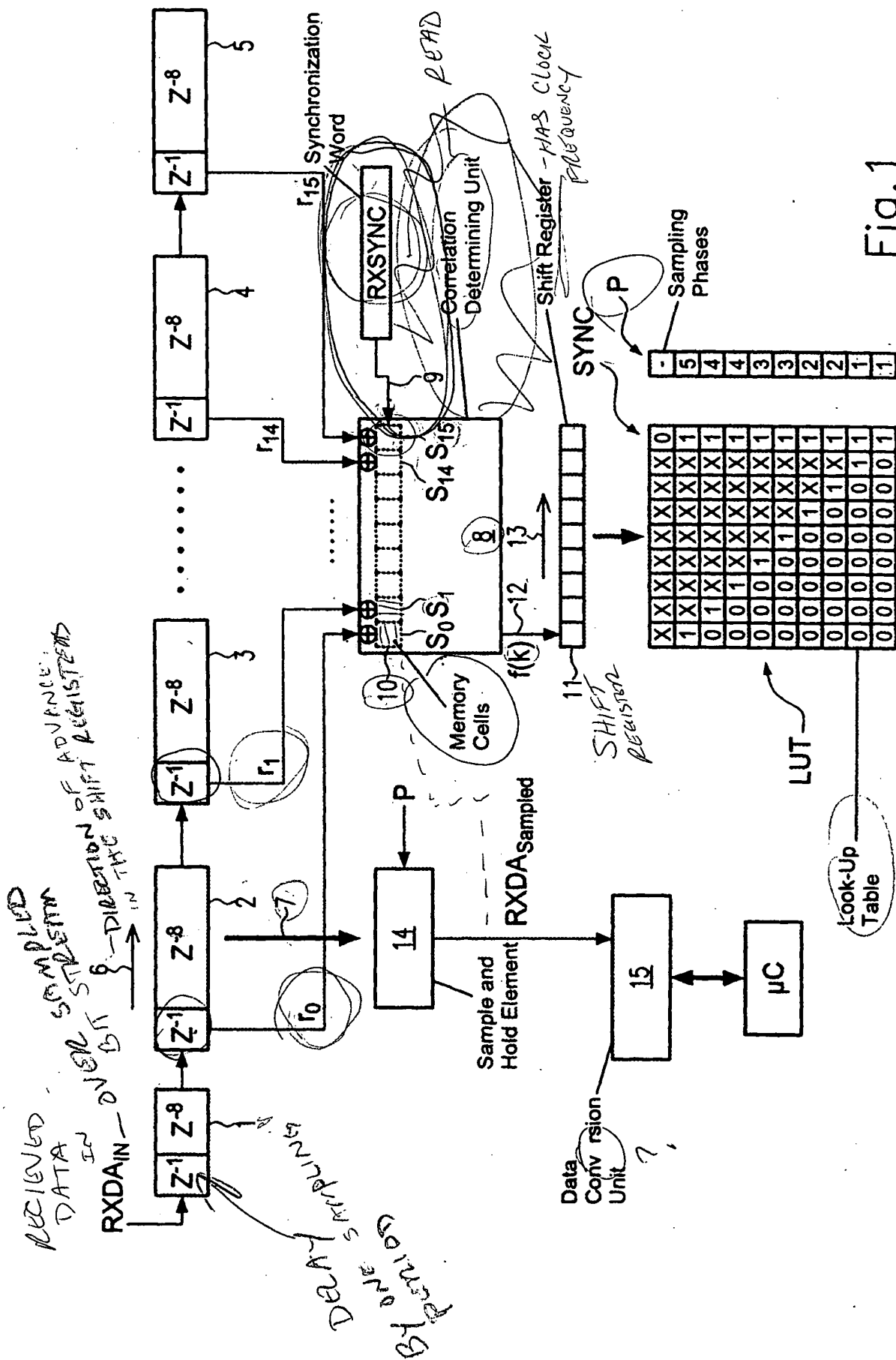


Fig.1
PRIOR ART

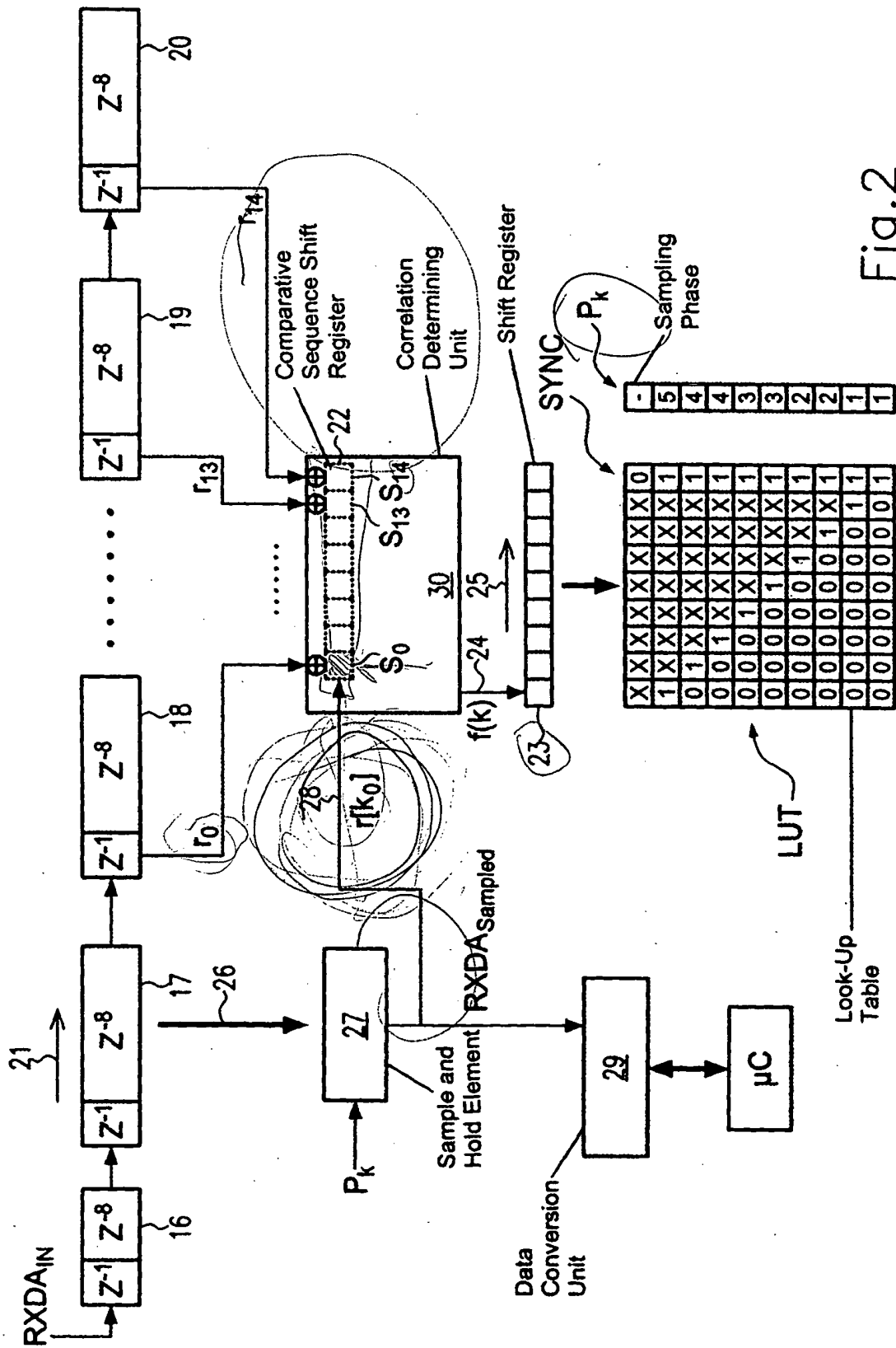


Fig. 2